

Appl'n No: 10/539,741

Amdt dated September 29, 2009

Reply to Office action dated August 4, 2009

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 22, line 9 in the above-captioned application (paragraph [0066] in the published version) with the following rewritten paragraph:

-- In another preferred embodiment, as illustrated in FIGS. 4a-d and 5a-b, the locking socket 200 is constructed as a two piece spindle including a torque lock 210 and an alignment sleeve 220. The alignment sleeve 220 is sized and shaped for insertion into a central tool bore 170 of the turbine unit 100. This alignment sleeve 220 and the torque lock 210 can also be made in a single piece. Thus, this torque transfer arrangement for a dental handpiece 10 with a turbine unit 100 for rotatably driving a burr 80 about an axis of rotation, the burr 80 having a burr shaft 81 with a non-circular shaft portion 83 (see FIG. 5a) and the turbine having an axial tool bore for receiving the burr shaft 81 includes a locking socket 200 with an axial bore 221 for receiving the shaft portion 83 of the burr shaft 81, the locking socket 200 being connectable with the turbine for rotation therewith and a torque transfer member 210 connected with the locking socket 200 for locking the shaft portion 83 against rotation relative to the locking socket 200. In the preferred embodiment of FIGS. 5a and b, the locking socket 200 is a two piece socket including a hollow spindle 220 and the torque lock 210. The locking socket 200 is connected to the turbine for rotation therewith. This is achieved by adhesive or friction connection of the torque lock 210 with the spindle 220 and connection of the latter with the turbine unit 100 (see FIGS. 4a-d). The spindle 220 can be non-rotatably connected to the turbine unit 100 for reliable torque transmission by compression fitting the spindle 220 into the turbine, but is preferably adhesively connected thereto. Thus, the locking socket 200 is insertable into the tool bore 101 of the turbine unit 100 and connected with the turbine. The locking socket 200 includes the hollow spindle 220 insertable into the tool bore 101 for connection with the turbine and a torque transfer member 230 incorporated in the torque lock 210 and extending radially inwardly into the axial bore 221 of the spindle 220. Although the torque lock 210 and the spindle 220 are shown in the illustrated embodiment as separate parts, they function as a single part, once interconnected, preferably by adhesive bonding, together forming a burr receiving spindle. However, they can also be made as a single part in the form of a spindle 220 fittingly receiving the burr shaft 81 and having an inwardly extending torque transfer member 230 directly incorporated into the spindle 220. The

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torque transfer member 230 is a protrusion extending radially inwardly into the cylindrical bore 221 of the spindle 220 for preventing rotation of the locking portion 83 of the burr shaft 81 in relation to the spindle 220, while permitting axial insertion of the burr shaft 81 into the spindle 220. Thus, the torque lock 210 has at least a portion of non-circular cross-section. That is, the portion including the torque transfer member 230, which renders the cross-section non-circular and non-complementary to the non-circular shaft portion 83. The torque transfer member 230 is adapted for engaging and locking at least a portion of the non-circular shaft portion 83 to prevent prevents rotation of the burr shaft 81 relative to the torque lock 210. The spindle 220 and torque lock 210 are preferably made of metal and the torque transfer member 230 is preferably stamped from the torque lock 210 or the spindle 220. As will be apparent from FIG. 5a, the ends of the torque transfer member 230 and the locking portion 83 of the burr shaft 81 which come into mutual contact during insertion of the burr shaft 81 into the spindle 220 have a rounded shape for directing the end surface of the locking portion 83 automatically past the torque transfer member 230 to achieve a self-alignment of the locking portion 83 relative to the torque transfer member 230 during insertion of the burr 80. --